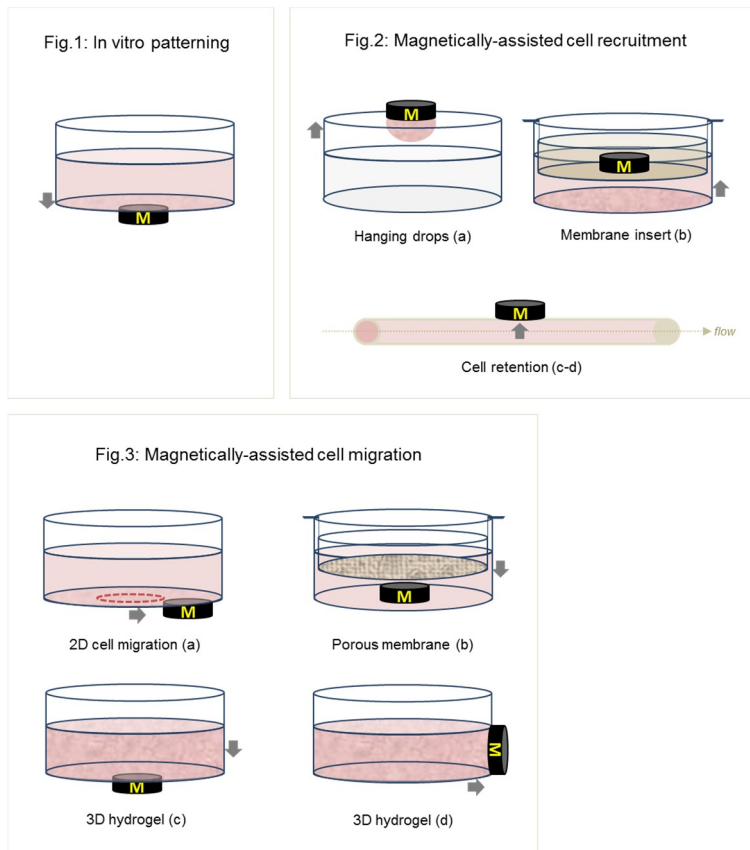


**Figure S1.** Image analysis for Figure 1e showing toluidine blue signal intensity across the well midline and the geometry of the ring structure used (red). (n = 3 measurements).



**Figure S2.** Graphical representation of the in vitro layouts used, showing the magnet (M) position and direction of movement (grey arrow).